Technical Data Sheet

Purified Mouse Anti-ERG2

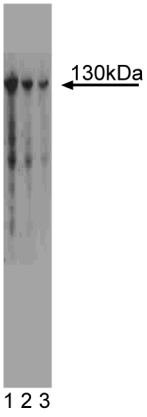
Product Information

Material Number:	**611076**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	46/Erg2
Immunogen:	Rat ERG2 aa. 823-937
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Drosophila and mammals contain a family of three related voltage-gated potassium channel genes: *eag*, *erg*, and *elk*. Similar in structure to the Kv-class of voltage-gated potassium channels, these channels have the six-membrane-spanning architecture. Mutations in the *erg* gene underlie a human genetic disease known as long QT syndrome, which produces arrhythmias and an increased incidence of sudden death. Mutations in the *erg* gene may increase susceptibility to arrhythmia by prolonging the cardiac action potential. The *erg* gene family consists of three genes: *erg1*, *erg2*, and *erg3*. Abundant nervous system expression of *erg1* indicates that it may be involved in nervous system function. However, erg1 is also expressed in non-neural tissues. On the other hand, *erg2* and *erg3* genes are expressed exclusively in the nervous system. Expression of the *erg2* gene is more limited and is located primarily in the prevertebral ganglia. Although the physiological role of the erg channels is unknown, each channel produces a different current that may differentially contribute to the development of long QT syndrome.

This antibody is routinely tested by western blot analysis. Other application were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of ERG2 on a PC12 cell lysate (Rat neuroblastoma; ATCC CRL-1721). *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-ERG2 antibody.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611454	PC12 Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Shi W, Wymore RS, Wang HS. Identification of two nervous system-specific members of the erg potassium channel gene family. *J Neurosci.* 1997; 17(24):9423-9432.(Biology)